

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number  
**WO 2004/028569 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 49/00**,  
47/30

Biocompatibles UK Limited, Chapman House, Farnham  
Business Park, Weydon Lane, Farnham, Surrey GU9 8QL  
(GB).

(21) International Application Number:  
PCT/GB2003/004075

(74) Agent: **GILL JENNINGS & EVERY**; Broadgate House,  
7 Eldon Street, London EC2M 7LH (GB).

(22) International Filing Date:  
23 September 2003 (23.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
02256647.5 25 September 2002 (25.09.2002) EP

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **BIO-COMPATIBLES UK LIMITED** [GB/GB]; Chapman House, Farnham Business Park, Weydon Lane, Farnham, Surrey GU9 8QL (GB).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LEWIS, Andrew, Lennard** [GB/GB]; Biocompatibles UK Limited, Chapman House, Farnham Business Park, Weydon Lane, Farnham, Surrey GU9 8QL (GB). **REDMAN, Richard, Paul** [GB/GB]; Biocompatibles UK Limited, Chapman House, Farnham Business Park, Weydon Lane, Farnham, Surrey GU9 8QL (GB). **GARCIA, Pedro** [GB/GB];

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: POLYMER COMPOSITIONS FOR ADMINISTRATION TO ANIMALS

(57) Abstract: Particulate embolotherapeutic compositions are described in which the particles comprise a matrix polymer expressing at surfaces available for interaction with biological molecules or, usually, blood cells, express zwitterionic groups, usually phosphoryl choline groups. The particles have suitable size and compressibility, for instance controlled by controlling the water content, for use in embolotherapy, by administration using catheters or hypodermic needles. The matrix polymer may be crosslinked. Preferably the particles are spherical. Examples are crosslinked polyvinylalcohol matrices coated with a crosslinkable copolymer formed of 2-methacryloyloxyethyl-2'-trimethylammoniummethyl phosphate inner salt with nonionic and crosslinkable comonomers. The coating is stabilised by crosslinking after coating from an organic solvent solution.